

## Abstract

A method and apparatus is provided for quantifying the upstream communication signals transmitted by remotely deployed CMs, and particularly cable modems operated consistent with the DOCSIS specification. Specifically, the method and apparatus provides the capability to capture, demodulate, and analyze the digital transmission originating from a CM source of known or unknown origin, and determine the unique MAC address or SID of the source CM that is measured. Additionally, the method and apparatus has the ability to analyze in the presence of many CMs, a specific user defined or user defined range of CMs by the implementation of real-time filtering either by method of pre-determination of the arrival time of the CM signal or by real-time filtering and analysis of the captured CM signal.